



IFW

Patent
Attorney's Docket No. 0070777-000022

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of)	MAIL STOP: SEQUENCE
Kye-Seong KIM et al.)	Group Art Unit: To be assigned
Application No.: 10/582,915)	Examiner: To be assigned
Filed: June 14, 2006)	Confirmation No.: 7421
For: NOVEL MIRNA MOLECULES)	
ISOLATED FROM HUMAN)	
EMBRYONIC STEM CELL)	

**TRANSMITTAL LETTER FOR RESPONSE TO NOTICE TO COMPLY
WITH SEQUENCE LISTING REQUIREMENTS AND PRELIMINARY AMENDMENT**

MAIL STOP: SEQUENCE
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In complete response to the Notice to Comply with Requirements for Patent
Applications Containing Nucleotide Sequence and/or Amino Acid Sequence
Disclosures mailed on April 2, 2007, enclosed please find:

- [X] A Response to Notice to Comply with Sequence Listing
Requirement and Preliminary Amendment with paper
copy of attached substitute Sequence Listing.
- [X] A diskette containing a computer readable version of the
substitute Sequence Listing.
- [X] A Declaration Pursuant to 37 C.F.R. §§ 1.821-1.825.
- [X] A copy of the Notice mailed on April 2, 2007.



UNITED STATES PATENT AND TRADEMARK OFFICE



UNITED STATES DEPARTMENT OF COMMERCE
 United States Patent and Trademark Office
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 P.O. Box 1450
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U.S. APPLICATION NUMBER NO.	FIRST NAMED APPLICANT	ATTY. DOCKET NO.
10/582,915	Kye-Seong Kim	1012679-000123

INTERNATIONAL APPLICATION NO.

PCT/KR04/03308

I.A. FILING DATE	PRIORITY DATE
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12/15/2004

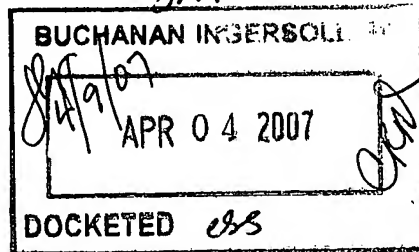
12/15/2003

21839

BUCHANAN, INGERSOLL & ROONEY PC
 POST OFFICE BOX 1404
 ALEXANDRIA, VA 22313-1404

101 2679-000123

SMD



CONFIRMATION NO. 7421

371 FORMALITIES LETTER



OC000000023195819

Sequence listing 6/2/07

Date Mailed: 04/02/2007

NOTIFICATION TO COMPLY WITH REQUIREMENTS FOR PATENT APPLICATIONS CONTAINING NUCLEOTIDE AND/OR AMINO ACID SEQUENCE DISCLOSURES

Applicant is given **TWO MONTHS FROM THE DATE OF THIS NOTICE** within which to file the items indicated below to avoid abandonment. Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

- The paper or compact disc copy of the "Sequence Listing" is not the same as the computer readable form of the "Sequence Listing" as required by 37 CFR 1.821(e). Applicant must provide a substitute paper or compact disc copy of the "Sequence Listing", as well as an amendment specifically directing its entry into the application OR a substitute computer readable form (CRF) copy of the "Sequence Listing". These two items must be the same. Applicant must also provide a statement that the content of the sequence listing information recorded in computer readable form is identical to the written (on paper or compact disc) sequence listing and, where applicable, includes no new matter, as required by 37 CFR 1.821(e), 1.821(f), 1.821(g), 1.825(b), or 1.825(d). If the effective filing date is on or after September 8, 2000, see the final rulemaking notice published in the Federal Register at 65 FR 54604 (September 8, 2000) and 1238 OG 145 (September 19, 2000).

Applicant is cautioned that correction of the above items may cause the specification and drawings page count to exceed 100 pages. If the specification and drawings exceed 100 pages, applicant will need to submit the required application size fee.

For questions regarding compliance to 37 CFR 1.821-1.825 requirements, please contact:

- For Rules Interpretation, call (571) 272-0951
- For Patent Software Program Help, call Patent EBC at 1-866-217-9197 or directly at 703-305-3028 / 703-308-6845 between the hours of 6 a.m. and 12 midnight, Monday through Friday, EST.
- Send e-mail correspondence for Patent Software Program Help @ ebc@uspto.gov

Applicant is reminded that any communications to the United States Patent and Trademark Office must be mailed to the address given in the heading and include the U.S. application no. shown above (37 CFR 1.5)

Registered users of EFS-Web may alternatively submit their reply to this notice via EFS-Web.
<https://sportal.uspto.gov/authenticate/AuthenticateUserLocalEPF.html>

For more information about EFS-Web please call the USPTO Electronic Business Center at 1-866-217-9197 or

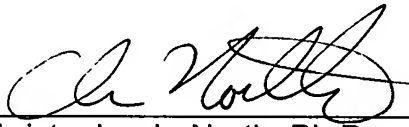
The Director is hereby authorized to charge any appropriate fees under 37 C.F.R. §§ 1.16, 1.17, 1.20(d) and 1.21 that may be required by this paper, and to credit any overpayment, to Deposit Account No. 02-4800. This paper is submitted in duplicate.

Respectfully submitted,

BUCHANAN INGERSOLL & ROONEY PC

Date: May 14, 2007

By: _____


Christopher L. North, Ph.D.
Registration No. 50,433

P.O. Box 1404
Alexandria, Virginia 22313-1404
(703) 836-6620

visit our website at <http://www.uspto.gov/ebc>.

If you are not using EFS-Web to submit your reply, you must include a copy of this notice.

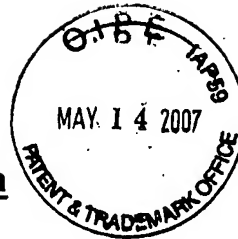
PAULETTE R KIDWELL

Telephone: (703) 308-9140 EXT 216

PART 1 - ATTORNEY/APPLICANT COPY

U.S. APPLICATION NUMBER NO.	INTERNATIONAL APPLICATION NO.	ATTY. DOCKET NO.
10/582,915	PCT/KR04/03308	1012679-000123

FORM PCT/DO/EO/922 (371 Formalities Notice)



STIC Biotechnology Systems Branch

RAW SEQUENCE LISTING
ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 10/582,915
Source: EFB
Date Processed by STIC: 6/22/06

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT MARK SPENCER, TELEPHONE: 571-272-2510; FAX: 571-273-0221

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE **CHECKER VERSION 4.4.0 PROGRAM**, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

<http://www.uspto.gov/web/offices/pac/checker/chkrnote.htm>

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.

Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.

Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<<http://www.uspto.gov/efb/efs/downloads/documents.htm>> , EFS Submission User Manual - ePAVE)
2. U.S. Postal Service: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450
3. Hand Carry, Federal Express, United Parcel Service, or other delivery service (EFFECTIVE 01/14/05):
U.S. Patent and Trademark Office, Mail Stop Sequence, Customer Window, Randolph Building, 401 Dulany Street, Alexandria, VA 22314

Revised 01/10/06



IFWP

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/582,915.

DATE: 06/22/2006
TIME: 13:08:12

Input Set : A:\Sequence Listing.txt
Output Set: N:\CRF4\06222006\J582915.raw

3 <110> APPLICANT: KIM, Kye-Seong
5 <120> TITLE OF INVENTION: Novel miRNA molecules isolated from human embryonic stem cell
7 <130> FILE REFERENCE: OP04-1083
C--> 9 <140> CURRENT APPLICATION NUMBER: US/10/582,915
C--> 9 <141> CURRENT FILING DATE: 2006-06-14
9 <160> NUMBER OF SEQ ID NOS: 99
11 <170> SOFTWARE: KopatentIn 1.71

Does Not Comply
Corrected Diskette Needed

(Pg. 1)

ERRORED SEQUENCES

805 <210> SEQ ID NO: 73
806 <211> LENGTH: 23
807 <212> TYPE: RNA
808 <213> ORGANISM: Homo sapiens
810 <400> SEQUENCE: 73
E--> 811
uaagugcuuc cauguuung uuu
1171 <210> SEQ ID NO: 99
1172 <211> LENGTH: 72
1173 <212> TYPE: RNA
1174 <213> ORGANISM: Artificial Sequence
1176 <220> FEATURE:
1177 <223> OTHER INFORMATION: miRNA precursor for miR-374
1180 <400> SEQUENCE: 99
1181
uacaucggcc auuauauac aaccugauaa guguuauagc acuuauacaga uuguauugua
1183
auugucugug ua
E--> 1187 20
E--> 1189 1

pls explain "N" locations.

See error explanation on page 2

pls delete

VARIABLE LOCATION SUMMARY

DATE: 06/22/2006

PATENT APPLICATION: US/10/582,915

TIME: 13:08:13

Input Set : A:\Sequence Listing.txt

Output Set: N:\CRF4\06222006\J582915.raw

Use of n's or Xaa's (NEW RULES):

Use of n's and/or Xaa's have been detected in the Sequence Listing.

Use of <220> to <223> is MANDATORY if n's or Xaa's are present.

in <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.

Error Explanation: 2

Seq#:73; N Pos. 18,19,22,23

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/582,915

DATE: 06/22/2006

TIME: 13:08:13

Input Set : A:\Sequence Listing.txt

Output Set: N:\CRF4\06222006\J582915.raw

L:9 M:270 C: Current Application Number differs, Replaced Current Application No

L:9 M:271 C: Current Filing Date differs, Replaced Current Filing Date

L:811 M:340 E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:73

L:1187 M:254 E: No. of Bases conflict, this line has no nucleotides.

M:254 Repeated in SeqNo=99